JUN 2 4 2008

510(k) Premarket Notification

HD15 Diagnostic Ultrasound system

# 3.2 Summary of Safety and Effectiveness

This summary of 510(k) safety and effectiveness information is submitted in accordance with the requirements of the Safe Medical Devices Act of 1990 as implemented in 21 C.F.R. §807.92.

The submitter of this premarket notification is:

William Picatti Manager, Regulatory Affairs Philips Ultrasound, Inc. 22100 Bothell Everett Highway Bothell, WA 98021-8431

Tel: (425) 487-7151 Fax: (425) 487-8666

This summary was prepared on May 12, 2009.

The proprietary name of the device is the HD15 Diagnostic Ultrasound System. In combination with transducers – 3D9-3v, BP10-5ec, C5-2, C6-3, C8-4v, C8-5, D2cwc, L12-3, L12-5, L15-7io, S5-2, S8-3, S7-2omni and V6-2 – are commonly known as a diagnostic ultrasound system and transducers.

These devices are classified as follows:

90IYN Ultrasonic Pulsed Doppler Imaging System 90IYO Ultrasonic Pulsed Echo Imaging System 90ITX Diagnostic Ultrasound Transducer

As stated in 21 CFR, parts 892.1550, 892.1560 and 892.1570, each of these generic types of devices have been classified as Class II.

The HD15 is a diagnostic ultrasound device. It consists of a system console containing the power supply and electronic circuitry required to generate the image, a display screen, and a connection to the separate transducers. It is substantially equivalent to the currently marketed HD11 Diagnostic Ultrasound System (K043535 and K062247).

510(k) Premarket Notification

Pg · 20+2 HD15 Diagnostic Ultrasound system

The HD15 system and transducers function in a manner identical to all Philips ultrasound systems and transducers. The system circuitry generates an electronic voltage pulse, which is transmitted to the transducer. In the transducer, a piezo-electric array converts the electronic pulse into an ultrasonic pressure wave. When coupled to the body, the pressure wave transmits through body tissues. The differing acoustic properties of the tissues in the body reflect some of the transmitted energy back to the transducer, where it is converted back to electrical signals and sent back to the system. In the system, advanced signal processing technologies convert the returned signals into images of the tissues. The Doppler functions of this system process the Doppler shift frequencies from the echoes of moving targets (such as blood), to detect and graphically display the Doppler shifts of these tissues as flow.

The HD15 is intended for diagnostic ultrasound imaging and fluid flow analysis.

The HD15 is substantially equivalent in safety and effectiveness to the predicates identified above:

- Both the predicate device and the HD15 are indicated for the diagnostic ultrasonic imaging and fluid flow analysis.
- Both the predicate device and the HD15 have the same gray-scale and Doppler capabilities.
- Both the predicate device and the HD15 use essentially the same technologies for imaging, Doppler functions and signal processing.
- Both the predicate device and the HD15 have acoustic output levels below the Track 3 FDA limits.
- Both the predicate device and the HD15 are manufactured under equivalent quality systems.
- Both the predicate device and the HD15 are manufactured of materials with equivalent biosafety. The materials have been evaluated and found to be safe for this application.
- Both the predicate device and HD15 are designed and manufactured to the same electrical and physical safety standards.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

"JUN 2 4 2008

Philips Ultrasound, Inc. % Mr. Mark Job Responsible Third Party Official Regulatory Technology Services LLC 1394 25<sup>th</sup> Street NW BUFFALO MN 55313

Re: K081661

Trade/Device Name: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic pulsed doppler imaging system

Regulatory Class: II

Product Code: IYN, IYO, and ITX

Dated: June 12, 2008 Received: June 13, 2008

### Dear Mr. Job:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System, as described in your premarket notification:

## Transducer Model Number

3D9-3v 4D Endovaginal
BP10-5ec Endocavity
C5-2 Curved Linear Array
C6-3 Curved Linear
(C8-4v) Endovaginal
C8-5 Curved Linear

D2cwc Non-image Pencil
L12-3 Linear Array
L12-5 50mm Linear Array
L15-7io Linear Array
S5-2 Sector Phased Array
S7-2 omni TEE Phased Array
S8-3 Sector Phased Array
V6-2 Mechanical 3D

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This determination of substantial equivalence is granted on the condition that prior to shipping the first device, you submit a postclearance special report. This report should contain complete information, including acoustic output measurements based on production line devices, requested in Appendix G, (enclosed) of the Center's September 30, 1997 "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers." If the special report is incomplete or contains unacceptable values (e.g., acoustic output greater than approved levels), then the 510(k) clearance may not apply to the production units which as a result may be considered adulterated or misbranded.

The special report should reference the manufacturer's 510(k) number. It should be clearly and prominently marked "ADD-TO-FILE" and should be submitted in duplicate to:

Food and Drug Administration Center for Devices and Radiological Health Document Mail Center (HFZ-401) 9200 Corporate Boulevard Rockville, Maryland 20850

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <a href="http://www.fda.gov/cdrh/industry/support/index.html">http://www.fda.gov/cdrh/industry/support/index.html</a>

If you have any questions regarding the content of this letter, please contact Lauren Hefner at (240) 276-3666.

Sincerely yours,

Nancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure(s)

#### 4.3.2 Indications for Use Tables

#### DIAGNOSTIC ULTRASOUND INDICATIONS FOR USE FORM

510(k) Number:

Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System Device name:

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applicatio	n			eration	or are i	umun oouj	us rono	
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic	N		N	N	N	N	N
	Fetal	N	N	N	N	N	N	N
	Abdominal	N	N	N	N	N	N	N
	Intra-operative (vascular/epicardial)	N	N	N	N	N	N	N
	Intra-operative (Neuro)	N	N	. N		N	N	N
	Laparoscopic							
Fetal Imaging	Pediatric	N	N	N	N	N	N	N
& Other	Small Organ (thyroid, scrotum, breast)	N	N	N		N	N	N
1	Neonatal Cephalic	N	N	N	N	N	N	N
	Adult Cephalic	N	N	N	N	N	N	N
	Trans-rectal	N	N	N		N	N	N
1	Trans-vaginal	N	N	. N	-	N	N	N
i	Trans-urethral							
	Trans-esoph. (non-Card.)							İ .
	Musculo-skei (conventional)	N	N	N		N	N	N
	Musculo-skel (superficial)	N	N	N	<u> </u>	N N	N	N
	Intra-luminal		1	<u> </u>	<u> </u>			
	Other (Gynecological)	N	N	N.	N	N	N	N
	Cardiac Adult	N	N	N	N	N	N	N
Cardiac	Cardiac Pediatric	N	N	N	N	N	N	N
	Trans-esoph. (Cardiac)	N	N	N	N	N	N	N
	Other (specify)			!	ì			1.
Peripheral	Peripheral vessel	N	N	N	N	N	N	N
Vessel	Other (Carotid, I/O)	N	N	N		N	N	N

N= new indication; P= previously cleared by FDA; E= added under Appendix E

\*Other modes: Panoramic, Color Power Angio (CPA, formerly Angio), 3D/4D, Harmonics (Tissue and Contrast), Directional Angio Imaging, Tissue Doppler Imaging. Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

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Prescription Use (Per 21 CFR 801.109)

Bivision of Reproductive, Abdominal, and

Radiological Devices §10(k) Number\_\_\_\_

510(k) Number: 408/64/

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer:

3D9-3v 4D Endovaginal transducer

Intended Use: Diagnostic ultrasound	imaging or fluid flow analysis of	f the human body as follows:
intelled 030. Diagnostic diffasculta	muchie of maid now andress of	i uic iluman bouv as follows.

Clinical Applicat	ion	Mode of Operation								
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic		<u> </u>	·						
	Fetal	P	P	P		P	P	P		
	Abdominal									
	Intra-operative (Specify)									
	Intra-operative (Neuro)							·		
	Laparoscopic				,					
Fetal Imaging	Pediatric									
& Other	Small Organ (Prostate)									
	Neonatal Cephalic		1							
	Adult Cephalic									
	Trans-rectal									
	Trans-vaginal	P	P	P		P	P	P		
	Trans-urethral									
1	Trans-esoph. (non-Card.)				<u> </u>					
	Musculo-skel (conventional)									
<u> </u>	Musculo-skel (superficial)									
•	Intra-luminal		<u> </u>	<u> </u>						
	Other (Gynecological)	<u> </u>	<u>.</u>	<u> </u>						
	Cardiac Adult									
	Cardiac Pediatric									
Cardiac	Trans-esoph. (Cardiac)									
	Other (specify)									
Peripheral	Peripheral vessel									
Vessel	Other (Specify)						1			

N= new indication; P= previously cleared by FDA; E= adde	d under Appendix E	
*Other modes: Color Power Angio, Panoramic, 3D/4D Imag	ging, Directional Angio Imaging	
Combined modes: Duplex = 2D + Doppler, Triplex = 2D +	Doppler + Color	
Previous submission. First use on this ultrasound system (S	ee 4 4 1 4)	

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number: KOSI661

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: BP10-5ec Endocavity transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	tion	Mode of Operation								
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic									
	Fetal	P	P	P		P	P	P		
	Abdominal									
	Intra-operative									
	(vascular/epicardial)		<u> </u>							
	Intra-operative (Neuro)		<u> </u>	<u> </u>						
	Laparoscopic							]		
Fetal Imaging	Pediatric		L							
& Other	Small Organ (scrotum)	P	P	P		P	P	P		
	Neonatal Cephalic									
	Adult Cephalic									
	Trans-rectal	P	P	P		P	P	P		
	Trans-vaginal	P	P	P		P	P	P		
	Trans-urethral									
	Trans-esoph. (non-Card.)			1						
	Musculo-skel (conventional)			ł		·				
	Musculo-skel (superficial)									
	Intra-luminal									
	Other (Gynecological)			1						
	Cardiac Adult									
Cardiac	Cardiac Pediatric									
	Trans-esoph. (Cardiac)			:			]	1		
	Other (Specify)									
Peripheral	Peripheral vessel									
Vessel	Other (Carotid, I/O)									

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3D/4D Imaging, Directional Angio
Imaging, Tissue Doppler Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color
Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices 510(k) Number\_\_\_\_

1001661

510(k) Number: \_\_\_\_

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: C5-2 Curved linear array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	tion	Mod	e of O	peration				
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal	P	P	P		P	P	P
	Abdominal	P	P	P		P	P	P
	Intra-operative							
	(vascular/epicardial)							<u> </u>
	Intra-operative (Neuro)							
	Laparoscopic					<u> </u>		
Fetal Imaging	Pediatric	P	P	P		P	P	P
& Other	Small Organ (thyroid,	P	P	P	•	P	P	P
	scrotum, breast)							ļ
	Neonatal Cephalic	<u> </u>						
	Adult Cephalic	<u> </u>	<u>                                       </u>		<u> </u>			<u> </u>
	Trans-rectal	L						<u> </u>
	Trans-vaginal						<u> </u>	ļ
	Trans-urethral						<u> </u>	<u> </u>
	Trans-esoph. (non-Card.)	<u> </u>						
	Musculo-skel (conventional)	<u> </u>			<u> </u>		<u>                                     </u>	<u> </u>
	Musculo-skel (superficial)		l				<u> </u>	
	Intra-luminal					<u> </u>	1	<u> </u>
	Other (Gynecological)	P	P	P		P	P	P
	Cardiac Adult				<u> </u>			
Cardiac	Cardiac Pediatric				<u> </u>		1	
	Trans-esoph. (Cardiac)							
	Other (Specify)		<u> </u>					<u> </u>
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Carotid, I/O)							

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3D/4D Imaging, Directional Angio
Imaging,
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color
Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number:

<081661

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer:

C6-3 Curved linear Transducer

Clinical Applica	tion	Mod	e of O	peration				
General (Track I Only)	Specific	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal	P	P	P		P	P	P
•	Abdominal	P	P	P		P	P	P
	Intra-operative (vascular/epicardial)							
	Intra-operative (Neuro)							
	Laparoscopic							
Fetal Imaging	Pediatric	P	P	P		P	P	P
& Other	Small Organ (thyroid,	P	P	P	<u> </u>	P	P	P
	scrotum, breast)			<u> </u>	ļ <u>.</u>			
	Neonatal Cephalic	<u> </u>				<u> </u>		<u> </u>
	Adult Cephalic			<u> </u>		ļ		
	Trans-rectal	<u> </u>	Ĺ	<u> </u>	ļ			
	Trans-vaginal				<u> </u>			<u> </u>
	Trans-urethral		<u> </u>	<u> </u>				<u> </u>
	Trans-esoph. (non-Card.)							<u> </u>
	Musculo-skel (conventional)			<u> </u>				<u> </u>
	Musculo-skel (superficial)	1						ļ
	Intra-luminal							
	Other (Gynecological)	P	P	P		P	P	P
	Cardiac Adult						<u>                                     </u>	1
Cardiac	Cardiac Pediatric							<u> </u>
	Trans-esoph. (Cardiac)							<u> </u>
	Other (Specify)						<u> </u>	<u> </u>
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Carotid, I/O)							1.

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3D/4D Imaging, Directional Angio
Imaging,
Combined modes: Duplex = 2D + Doppler, Triplex = 2D + Doppler + Color, Dual
Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number\_

2081661

510(k) Number: KO81001

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: (C8-4v) Endovaginal transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	tion	Mod	e of C	peration		*****		
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal	P	P	P	ı	P	P	P
	Abdominal							
	Intra-operative							
	(vascular/epicardial)							
	Intra-operative (Neuro)					]		<u></u>
	Laparoscopic							
Fetal Imaging	Pediatric				T T			
& Other	Small Organ (thyroid,							
	scrotum, breast)		L	<u> </u>		<u>.</u>		İ
	Neonatal Cephalic							
	Adult Cephalic						,	
	Trans-rectal							
	Trans-vaginal	P	P	P	<u> </u>	P	P	P
	Trans-urethral							
	Trans-esoph. (non-Card.)				ŀ			
	Musculo-skel (conventional)							l
	Musculo-skel (superficial)							
	Intra-luminal							ļ
	Other (Gynecological)			ļ				
	Cardiac Adult							
Cardiac	Cardiac Pediatric			1			Ī	
	Trans-esoph. (Cardiac)				1			
	Other (Specify)	1						
Peripheral	Peripheral vessel					1		
Vessel	Other (Carotid, I/O)			1		1		

N= new indication; P= previously cleared by FDA; E= added under Appendix E	
*Other modes: Color Power Angio, Panoramic, 3D/4D Imaging, Directional Angio Imaging	
Combined modes: Duplex = 2D + Doppler, Triplex = 2D + Doppler + Color	
Previous submission: First use on this ultrasound system (See 4.4.1.4)	

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number <u>2081661</u>

510(k) Number: 108 106

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: C8-5 Curved linear Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	: Diagnostic ultrasound imagi	_	_		arysis or i	ile iluitian i	ody as lono.	NS.
Clinical Applica		Mod	e of O	peration			6 1: 1	1 02 *
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal	P	P	P		P	P	P
	Abdominal	P	P	P		P	P	P
	Intra-operative (vascular/epicardial)							
	Intra-operative (Neuro)		ļ	<u> </u>				<u> </u>
	Laparoscopic		ļ					
Fetal Imaging	Pediatric	P	P	P		P	P	P
& Other	Small Organ (thyroid, scrotum, breast)		<u> </u>					
	Neonatal Cephalic	P	P	P		P	P	P
	Adult Cephalic							<u> </u>
	Trans-rectal		1	<u> </u>	<u> </u>			
	Trans-vaginal					1	<u> </u>	<u>.</u>
	Trans-urethral			<u> </u>		<u> </u>	1	
	Trans-esoph. (non-Card.)					<u> </u>		
	Musculo-skel (conventional)	<u> </u>						
	Musculo-skel (superficial)			<u> </u>		<u> </u>		
	Intra-luminal			<u> </u>	<u> </u>		<u> </u>	
	Other (Gynecological)	P	P	P		P	P	P
	Cardiac Adult							<u> </u>
Cardiac	Cardiac Pediatric						1	
	Trans-esoph. (Cardiac)							
	Other (specify)							
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Carotid, I/O)						1	

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Color Power Angio, Panoramic, 3D/4D Imaging, Harmonics (Tissue), Directional Angio Imaging,
Tissue Doppler Imaging,
Combined modes: Duplex = 2D + Doppler, Triplex = 2D + Doppler + Color, Dual
Previous submission: First use on this ultrasound system (Sec 4 4 1 4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number <u>K 0 81 661</u>

510(k) Number:

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: D2cwc Non-Imaging Pencil

	Diagnostic ultrasound imagi				alysis of	tne numan	body as foll	ows:
Clinical Applica		Mod	e of C	peration				
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal Abdominal							
	Intra-operative (vascular/epicardial)							
	Intra-operative (Neuro)							
:	Laparoscopic	1						
Fetal Imaging	Pediatric	<u> </u>				ļ		<u> </u>
& Other	Small Organ (thyroid, scrotum, breast)						1	
	Neonatal Cephalic							
	Adult Cephalic							
	Trans-rectal							
	Trans-vaginal	<u></u>						
	Trans-urethral	<u> </u>						
	Trans-esoph. (non-Card.)							
: I	Musculo-skel (conventional)		<u> </u>					<u> </u>
	Musculo-skel (superficial)							
	Intra-luminal	ļ	ļ			ļ		
	Other (Gynecological)	<u> </u>					<u>l</u>	
	Cardiac Adult				P		ł	1
Cardiac	Cardiac Pediatric		<u> </u>		P			
	Trans-esoph. (Cardiac)	L		ļ <u>.</u>				
	Other (Specify)							
Peripheral	Peripheral vessel							
Vessel	Other (Carotid, I/O)							

N= new indication	n; P= previously cleare	d by FDA; E= ac	lded under A	ppendix E	
*Other modes inc	lude: None				
Combined modes	: None.				
Province submins	ion. Einstugg on this u	Itmooranad arratama	(5 4 4 1 4	\	

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number: K081661

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: L12-3 Linear array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	tion	Mod	e of C	peration				
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal							
	Abdominal	P	P	P		P	P	P
	Intra-operative							
	(vascular/epicardial)							
	Intra-operative (Neuro)							
	Laparoscopic							<u> </u>
Fetal Imaging	Pediatric	P	P	P	i	P	P	P
& Other	Small Organ (thyroid,	P	P	P		P	P	P
	scrotum, breast)		<u> </u>		1			<u> </u>
	Neonatal Cephalic		<u> </u>			l		
	Adult Cephalic							
	Trans-rectal				Ĭ		ļ <u></u>	
	Trans-vaginal					]		
	Trans-urethral						l	
	Trans-esoph. (non-Card.)		l					
	Musculo-skel (conventional)	P	P	P		P	P	P
	Musculo-skel (superficial)	P	P	P		P	P	P
	Intra-luminal							
	Other (Gynecological)						İ	
	Cardiac Adult	T					Ţ	
Cardiac	Cardiac Pediatric							
	Trans-esoph. (Cardiac)	I						
	Other (Specify)							
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Carotid, I/O)	P	P	P		P	P	P

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio
Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color
Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number <u>KOSI 66</u>

510(k) Number: K08/66/

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: L12-5 50mm Linear array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	Diagnostic ultrasound imagi	ng Oi	Huid	HOW all		of Operatio		ws.
General (Track I Only)	Specific	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal Abdominal	P	P	P		P	P	P
	Intra-operative (vascular/epicardial) Intra-operative (Neuro)							
Fetal Imaging	Laparoscopic Pediatric	P	P	P		P	P	P
& Other	Small Organ (thyroid, scrotum, breast)	P	P	P		P	P	P
	Neonatal Cephalic Adult Cephalic							
	Trans-rectal Trans-vaginal							
	Trans-urethral Trans-esoph. (non-Card.)							
	Musculo-skel (conventional) Musculo-skel (superficial)	P	P P	P		P	P	P
	Intra-luminal Other (Gynecological)		<u>.</u>	r				<u> </u>
Cardiac	Cardiac Adult Cardiac Pediatric							
The second	Trans-esoph. (Cardiac) Other (Specify)							<del>                                     </del>
Peripheral Vessel	Peripheral vessel Other (Carotid, I/O)	P	P	P		P	. Р	P

٦	<b>I</b> =	new indication:	P= previously	cleared by	$r FDA \cdot F = a$	dded under	Annendix	F

\*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Imaging, Tissue Doppler Imaging

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number\_\_\_\_

510(k) Number:

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: L15-7io Linear array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	ition				Mode	of Operatio	n	
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal							
	Abdominal							
	Intra-operative	P	P	P		P	P	P
	(vascular/epicardial)							<u> </u>
	Intra-operative (Neuro)	P	P	P		P	P	P
	Laparoscopic							
Fetal Imaging	Pediatric	P	P	P		P		P
& Other	Small Organ (thyroid,	P	P	P		P	P	P
	scrotum, breast)	l						
	Neonatal Cephalic							
	Adult Cephalic							
	Trans-rectal		l				<u> </u>	<u> </u>
	Trans-vaginal					}		
	Trans-urethral			1				
	Trans-esoph. (non-Card.)					P P P		
	Musculo-skel (conventional)	P	P	P		P	P	P
	Musculo-skel (superficial)	P	P	P		P	P	P
	Intra-luminal	·						<u> </u>
	Other (Gynecological)				·			
	Cardiac Adult							1
Cardiac	Cardiac Pediatric							
	Trans-esoph. (Cardiac)							<u> </u>
	Other (Specify)							
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Carotid, I/O)	P	P	P		P	P	P

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Amplitude Doppler, Panoramic, Directional Angio Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color
Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number: KO8166

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Transducer: S5-2 Sector phased array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Applica	tion	_		peration	,		coup ab ion	
General (Track I Only)		В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic	P		P.	P	P	P	P
	Fetal	P	P	P	P	P	P	P
	Abdominal	P	P	P	P	P	P	P
	Intra-operative (vascular/epicardial)	P	P	P	P	P	P	P
	Intra-operative (Neuro)  Laparoscopic							
Fetal Imaging	Pediatric	P	P	P	P	P	P	P
& Other	Small Organ (thyroid, scrotum, breast)							
	Neonatal Cephalic							
	Adult Cephalic	P	P	P	P	P	P	P
	Trans-rectal							• •
	Trans-vaginal							
	Trans-urethral							
	Trans-esoph. (non-Card.)							
	Musculo-skel (conventional)							
	Musculo-skel (superficial)				l			
	Intra-luminal							
	Other (Gynecological)	P	P	P	P	P	P	P
	Cardiac Adult	P	P	P	P	P	P	P
Cardiac	Cardiac Pediatric	P	P	P	P	P	P	P
	Trans-esoph. (Cardiac)							
-	Other (Specify)							
Peripheral	Peripheral vessei	P	P	P	P	P	P	P
Vessel	Other (Carotid, I/O)							

N= new indication; P= previously cleared by FDA; E= added under Appendix E	
*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3D/4D Imaging, D	irectional
Angio Imaging, Tissue Doppler Imaging	

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number: K081661

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Fransducer: S7-2 omni TEE phased array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application			ing or fluid flow analysis of the human body as follows:  Mode of Operation							
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic									
Ophthalmic  Fetal Imaging & Other	Fetal Abdominal Intra-operative (vascular/epicardial) Intra-operative (Neuro) Laparoscopic Pediatric Small Organ (thyroid, scrotum, breast) Neonatal Cephalic Adult Cephalic Trans-rectal Trans-vaginal Trans-urethral Trans-esoph. (non-Card.) Musculo-skel (conventional) Musculo-skel (superficial) Intra-luminal Other (Gynecological)									
Cardiac	Cardiac Adult Cardiac Pediatric	P	P	P	P	P P	P	P		
Curdiac	Trans-esoph. (Cardiac) Other (Specify)	P	P	P	P	P	P	P		
Peripheral Vessel	Peripheral vessel Other (Carotid, I/O)									

		eviously					

*Other modes: Color Power Angio, Tissue Doppler Imaging, Directional Angio Imaging,	
Combined modes: Duplex = 2D + Doppler	

Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number: \_\_\_\_\_

MOS 100

System: Philips Ultrasound, Inc. HD15 Diagnostic Ultrasound System

Fransducer: S8-3 Sector phased array transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application			Mode of Operation						
General (Track I Only)	Specific (Tracks I & III)	В	B M PWD CWD			Color Doppler	Combined (Specify)	Other* (Specify)	
Ophthalmic	Ophthalmic								
	Fetal	P	P	P		P	P	P	
	Abdominal	P	P	P	P	P	P	P	
	Intra-operative (vascular/epicardial)								
	Intra-operative (Neuro)	<u> </u>							
	Laparoscopic								
Fetal Imaging	Pediatric	P	P	P	P	P	P	P	
& Other	Small Organ (thyroid, scrotum, breast)								
	Neonatal Cephalic	P	P	P	P	P	P	P	
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph. (non-Card.)								
	Musculo-skel (conventional)	<u> </u>	<u> </u>	1				ı	
	Musculo-skel (superficial)			<u> </u>					
	Intra-luminal			1					
	Other (Gynecological)	P	P	P	P	P	P	P	
	Cardiac Adult	P	P	P	P	P	P		
Cardiac	Cardiac Pediatric	P	P	P	P	P	P	P	
	Trans-esoph. (Cardiac)			<u> </u>	<u> </u>				
	Other (Specify)				L	<u> </u>			
Peripheral	Peripheral vessel	P	P	P	P	P	P	P	
Vessel	Other (Carotid, I/O)						-		

N= new indication; P= previously cleared by FDA; E= added under Appendix E

\*Other modes: Color Power Angio, Panoramic, 3-D Imaging, Directional Angio Imaging, Tissue Doppler Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color
Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal, and

Radiological Devices

510(k) Number: K

System: Philips Ultrasound, Inc. Pathfinder Diagnostic Ultrasound System

Transducer: V6-2 Mechanical 3D Transducer

Intended Use: Diagnostic ultrasound imagir	ig or fluid flow analysis of the human body as follows:
Clinical Application	Made of Onesetica

				or fluid flow analysis of the human body as follows:						
		Mod	e of C	peration						
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic									
_	Fetal	P	P	P		P	P	P		
	Abdominal	P	P	P		P	P	P		
	Intra-operative (Specify)									
	Intra-operative (Neuro)	<u> </u>			]					
	Laparoscopic									
Fetal Imaging	Pediatric	P	P	P		P	P	P		
& Other	Small Organ (Scrotum, Thyroid, Breast)					!		_		
	Neonatal Cephalic			<u> </u>				<b>1</b>		
	Adult Cephalic									
	Trans-rectal									
	Trans-vaginal			1						
	Trans-urethral									
	Trans-esoph. (non-Card.)									
	Musculo-skel (conventional)									
	Musculo-skel (superficial)									
	Intra-luminal									
	Other (Gynecological)	P	P	P	<u> </u>	P	P	P		
	Cardiac Adult						<u> </u>	, "		
Cardiac	Cardiac Pediatric									
	Trans-esoph. (Cardiac)									
	Other (specify)			ļ			<u> </u>			
Peripheral	Peripheral vessel									
Vessel	Other (Carotid)						1			

N= new indication: P= previously clears	ed by FDA: E= added under Annendix E

\*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue), 3D/4D Imaging, Directional Angio Imaging Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color, Previous submission: First use on this ultrasound system (See 4.4.1.4)

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Prescription Use (Per 21 CFR 801.109)

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Division of Reproductive, Abdominal, and

Radiological Devices